

04-013014

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Carquinez Bridge Retrofit  
Information/Questionnaire

## **BRIDGE SEISMIC RETROFIT INFORMATION/QUESTIONNAIRE**

**- DO NOT DETACH-  
THIS INFORMATION SHALL BE  
INCLUDED WITH YOUR BID PROPOSAL**

In compliance with Governor's Executive Order D-8-99

### **I. Organization/Experience**

- 1) Provide a functional and staff personnel organizational chart for the project.
- 2) Provide resumes for the bidders on site management staff, including engineers, craft supervisors, and administrators.
- 3) Provide resumes of construction engineers and/or third party engineers or firms responsible for:
  - A. Excavation, trenching and shoring or ground support
  - B. Tower Foundations
  - C. Tower erection
  - D. Main cable erection
  - E. Superstructure erection
- 4) Provide a summary of the bidder's experience, and the experience of the bidder's subcontractors, material suppliers, and construction engineers, in construction of suspension bridges. Provide a list of specific projects and names and telephone numbers of contacts for the clients for each of the projects cited. Provide documentation such as copies of the general plan of each cited project and/or shop drawings and/or plan sheets of salient features of the cited projects that are similar to the Carquinez Bridge, Including the following:
  - A. Cast-in-place towers
  - B. Cable supply and spinning
  - C. Fabrication and erection of steel orthotropic box girders
  - D. Placement of steel deck roadway overlay
- 5) Provide a summary of the bidder's experience in construction of major bridge foundations in navigable waterways with oceangoing traffic lanes, in areas under the jurisdiction of the United States Coast Guard and subject to tides and strong currents high winds and fog.

- 6) Provide a summary of the bidder's experience in marine construction wherein environmental restrictions, permits, railroads, utilities, property owners, adjacent construction projects and/or other third parties imposed difficult restrictions and/or required difficult coordination.
- 7) Summarize the bidder's or subcontractor's experience in construction of large diameter, deep, C.I.D.H. piles, similar in design and in situ materials, to those indicated for this project.
- 8) Summarize the bidder's experience with excavation, handling, and disposal of contaminated and/or hazardous materials and the agencies regulating such activities in California.
- 9) Summarize the bidder's experience in dealing with the local community and the area businesses as well as the civic representatives.

## **II. Access and Logistics**

- 1) Explain the bidders approach to personnel and material handling across and adjacent to the railroad tracks.
- 2) What are the bidder's plans for access to the work at Tower 2 and utilization of the existing access trestle foundations?
- 3) What are the bidders plans for access to the work at Tower 3?
- 4) What will be the source and delivery method of Portland Cement Concrete?
- 5) What are the bidder's anticipated daily work hours, number of shifts, and number of workdays per week for the following principle items of work?
  - A. Tower foundations
  - B. Tower erection
  - C. Cables
  - D. Box girder erection
- 6) What areas or facilities does the contractor anticipate using for assembly, storage and/or staging of materials?
- 7) What areas does the bidder anticipate using for staging of personnel and for employee parking?

## **III. South Anchorage**

- 1) Summarize the bidder's planned sequence of construction and potential problems anticipated.
- 2) How will excavated material be removed?
- 3) What method of shoring will be used?
- 4) What equipment will be used for pile placing?

- 5) What methods or modifications to piles are anticipated if difficult driving are encountered?
- 6) Describe the method of constructing the strand shoes and anchor frames and how these components will be secured and maintained in the proper geometry prior to being cast in place.
- 7) Does the bidder plan to complete all work at the south anchorage prior to the construction of falsework for span 6 of the approach by the adjacent contract?

#### **IV. Tower Foundations**

- 1) What methods will be used to construct, transport, and secure the footing forms and struts?
- 2) What methods and equipment will be used to place the steel casing? How will rubble and debris of the type indicated in the special provisions be dealt with if encountered?
- 3) What methods and equipment will be used to construct the rock socket? including:
  - A. Drilling equipment.
  - B. Slurry handling system
  - C. Hoisting equipment
  - D. Concrete tremie system
  - E. Placing the reinforcing cage, method, number and location of splices, method for securing the inspection tubes and keeping them open during steel and concrete placement
- 4) What methods will be used to place the steel casing to the required tip should rubble or wood debris of the nature indicated in the special provisions be encountered while placing the casing?
- 5) What methods of repair are anticipated for piles which do not pass acceptance testing?
- 6) How many such repairs are anticipated during the project?

#### **V. Towers**

- 1) What is the bidder's overall sequence of construction?
- 2) What methods will be employed for placing and securing rebar and pouring concrete?
- 3) What type of hoisting equipment will be used?
- 4) What type of formwork and falsework will be used?
- 5) What forming method will be used for the fender system at Tower 3?

#### **VI. North Side**

- 1) What is the bidder's sequence of construction for the North Anchorage and Abutment and the retaining walls in this vicinity and what items are concurrent?
- 2) What type of form liner will be used for the architectural treatment of the retaining walls?

- 3) What type of shoring and dewatering is anticipated for excavations?

## **VII. Cables**

- 1) Summarize the construction sequence of the cable system, detailing the methods, materials, personnel, and equipment to be used and the anticipated schedule.
- 2) What cable erecting equipment will be used and what is the source and availability of the cable erecting equipment?
- 3) What is the source of the materials for cable system, (wire, Suspenders, castings, miscellaneous hardware)?
- 4) What is the configuration of the storm cabling and has it been verified to comply with United States Coast Guard regulations and maintain the integrity of the navigation channels?

## **VIII. Superstructure**

- 1) Summarize the construction sequence of the girder erection, detailing the methods, materials, personnel, and equipment to be used and the anticipated schedule.
- 2) What is the source of structural steel plate for the orthotropic box girder sections?
- 3) What is the location of fabrication and assembly facilities?
- 4) What is the schedule for fabrication and assembly at each of the above named facilities?
- 5) What means of shipping will be used?
- 6) How will the steel box girder sections be handled and erected at the jobsite?

## **IX. Schedule**

- 1) Provide the bidder's anticipated construction schedule in bar chart format. The schedule shall clearly illustrate the sequence and duration of major items of work in sufficient detail to demonstrate the bidder's knowledge of the work.
- 2) What submittals of plans, working drawings, or other required information are anticipated in the first 90 days of the project? What is the anticipated schedule for providing these submittals and who will be responsible for them?